VERTIV™

Avocent® SVMV Desktop MultiViewer Switch

Installer/User Guide

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures.

Visit https://www.vertiv.com/en-us/support/ for additional assistance.

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1 Product Overview

With the Vertiv™ Avocent® SVMV Desktop MultiViewer Switch, you can simultaneously view as many as eight active computers on one or two displays and seamlessly switch between them by moving the mouse across window borders while pressing the left CTRL key. This feature is called Cursor Navigation Switching (CNS).

1.1 Products Supported

- Avocent® SVMV 240DPH universal DP/H desktop MultiViewer switch
- Avocent® SVMV 280DPH universal DP/H desktop MultiViewer switch

1.2 Features and Benefits

The switch provides the following features and benefits:

- Universal video connectors supporting HDMI 1.4 or DisplayPort (DP) 1.2 or DVI-D (with HDMI-to-DVI-D cable)
- Native video support up to UHD 4K (3840x2160) at 30 Hz
- Ability to view up to eight active computers simultaneously on one or two displays
- Scale any source to 4K or downscale any source from 4K to a lower resolution
- Cursor Navigation Switching (CNS) giving you control to switch from one isolated computer to another by moving the mouse across borders
- Touchscreen support
- Managed copy and paste between computers
- Lock audio and USB to specific computers
- Three front-panel USB 3.0 ports with one high-power charging port on the 4-port model
- One rear panel USB 2.0 accessory port on the 8-port model

1.3 System Requirements

Ensure a minimum of one of the following operating systems is installed on the computers to be connected:

- Microsoft Windows 8.1 and 10 or higher
- Red Hat, Ubuntu or any other Linux platform
- Apple Mac OS X Catalina version 10.15.5 or higher

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2 Basic Operation

The keyboard and mouse console ports support only USB HID (Human Interface Device) keyboards and mice. Non-standard keyboards, keyboard with integrated USB hubs, or keyboards with other USB-integrated devices may not be supported.

2.1 Switch Overview

The MultiViewer switch is configured and operated via LED buttons on the front panel, an on-screen display (OSD) and various keyboard shortcuts on a connected keyboard.

Figure 2.1   Avocent SVMV240DPH MultiViewer Switch
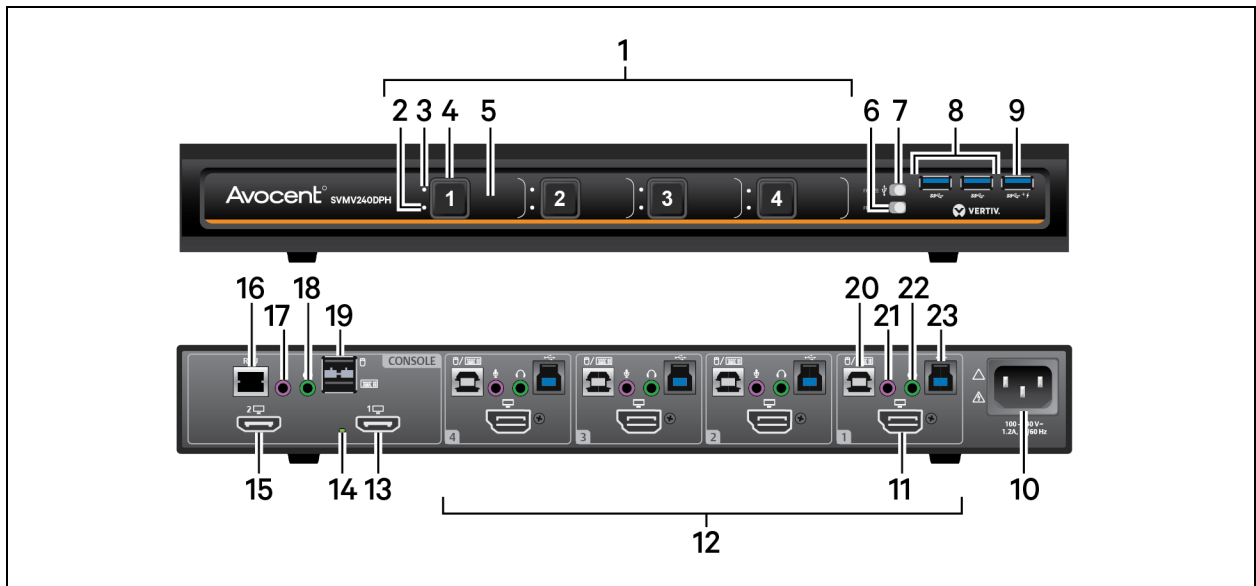
Table 2.1   Avocent SVMV240DPH MultiViewer Descriptions

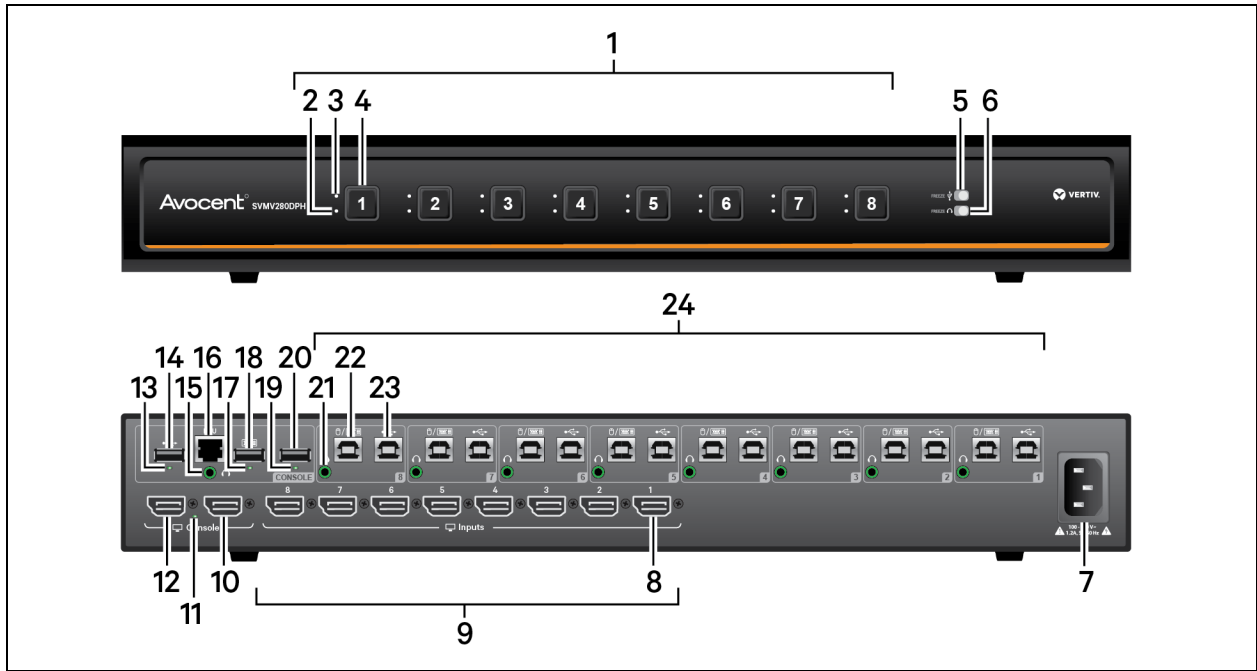| Item	Description	Item	Description	Item	Description
1	Computer channel 1-4 selectors	9	USB 3.0 accessory port input (high-power charging -- 5V @ 1A)	17	Console microphone input
2	Audio freeze indicator	10	Power input	18	Console speaker output
3	USB 3.0 accessory freeze indicator	11	DP/HDMI video input for computer 1	19	Console USB keyboard and mouse input
4	Channel selector	12	Computer connections; the switch shown supports up to four computers	20	Keyboard and mouse USB Type-B connector for computer 1
5	Channel label	13	Primary HDMI video output	21	Microphone connection for computer 1
6	Audio freeze toggle	14	Console video diagnostic LED indicator	22	Speaker input for computer 1
7	USB 3.0 accessory freeze toggle	15	Secondary HDMI video output	23	USB 3.0 Type-B connector for computer 1
8	USB 3.0 accessory port input (5V @ 0.5A)	16	RCU port; used with AFP		

Figure 2.2   Avocent SVMV280DPH MultiViewer Switch

Table 2.2   Avocent SVMV280DPH MultiViewwer Switch Descriptions

Item	Description	Item	Description	Item	Description
1	Computer channel 1-8 selectors	9	Computer DP/HDMI video connections for up to eight computers	17	Console USB keyboard status LED indicator
2	Audio freeze indicator	10	Primary DP/HDMI video output	18	Console USB console keyboard input
3	USB 2.0 accessory freeze indicator	11	Console video diagnostic LED indicator	19	Console USB mouse status LED indicator
4	Channel selector	12	Secondary DP/HDMI video output	20	Console USB console mouse input
5	USB 3.0 accessory freeze toggle	13	Console USB 2.0 accessory diagnostic LED indicator	21	Speaker input for computer 8
6	Audio freeze toggle	14	USB 2.0 accessory console input	22	Keyboard and mouse USB Type-B connector for computer 8
7	Power input	15	Console speaker output	23	USB 2.0 accessory USB Type-B connector for computer 8
8	DP/HDMI video input for computer 1	16	RCU port; used with AFP	24	Computer USB keyboard/mouse and DPP connections for up to eight computers

2.2 Control Options

LED indicators on the front and back panels of the switch allow you to view the status of the switch and its connected computers, displays and peripherals.

2.2.1 Rear panel status LED indicators

The keyboard and mouse ports only accept USB HID (human interface device) keyboard and mouse devices. The 8-port model has status indicators for the console, keyboard, mouse and USB 2.0 accessory port.

NOTE: The 4-port model does not have LED indicators for the console keyboard, mouse or three USB 3.0 accessory ports on the front.

On the 8-port model, the keyboard, mouse and USB accessory diagnostic LEDs indicate an approved device is connected and ready for use. Each LED illuminates solid green a few seconds after power is applied.

- Off - no device detected
- Red - device is rejected
- Green - device is approved

The video diagnostic LED indicates the Extended Display Identification Data (EDID) information has been successfully read from the display and stored in memory. The EDID is only read in the first few seconds after the switch is powered on.

- Off - no EDID detected
- Blinking - reading EDID
- On - EDID received

NOTE: Hot-plugging or swapping displays while the switch is on is not supported. To change a display, power cycle the switch.

2.2.2 Important notes about keyboard shortcuts

- Always use the left control (CTRL) key unless otherwise specified.
- Press keyboard shortcut keys sequentially.
- Do not use the numeric keypad for toggling shortcuts unless specified.
- All keyboard shortcuts refer to QWERTY keyboards. If a non-QWERTY keyboard is in use, keep using the QWERTY layout.

2.2.3 Admin mode

Admin mode is used to modify the window arrangement on the displays or to select the active window.

To enter Admin mode:

Enter **L-CTRL** | **L-CTRL** | **o** (lowercase O)

-or-

Press the scroll wheel or the mouse side button. For more information, see Admin Mode Mouse Switching on page 24

A large blue cursor indicates you are in Admin mode. Mouse data is not sent to any computer; however, keyboard data is sent to the selected computer.

To move a window:

Press and hold the left mouse button anywhere in the window and move the mouse to position the window as desired.

To resize a window:

1. Position the mouse pointer in the bottom right corner of the window.
2. Press and hold the right mouse button and move the mouse to resize the windows as desired.

NOTE: Window resizing is affected by the Auto Scaling Video Setting (See Auto Scaling on page 19.)

2.2.4 User mode

User mode is used to interact with the selected computer.

To enter User mode:

Enter L-CTRL | L-CTRL | u

-or-

Press the scroll wheel or the mouse side button. For more information, see Admin Mode Mouse Switching on page 24

In User mode, the large blue cursor disappears and the mouse functions in the selected computer until switched to another computer.

2.3 Cursor Navigation Switching

By default, the switch allows you to move between windows when moving the mouse moves across a window border. This is called Cursor Navigation Switching (CNS). When CNS switches from one computer to another, the keyboard, mouse, audio and USB accessory device mapping switch accordingly.

Alternatively, you can configure the switch to confine mouse cursor movement to the active window. With this method, you must use Admin mode, the channel select shortcuts or the front panel buttons to switch focus between the computer windows.

NOTE: See Presets on page 13 for predefined display layouts.

To enable CNS:

Press L-CTRL | L-CTRL | F11 | c.

To disable CNS:

Press L-CTRL | L-CTRL | F11 | b.

2.4 Channel Selection

The numbered LED buttons are each mapped to a corresponding computer port on the back panel. For example, the LED one button is mapped to the computer connected to computer input one.

You can select which computer to operate using the front panel push buttons. The LED number illuminates to indicate which computer is currently selected. When you select a new computer, the mapping for the keyboard, mouse, audio and USB device also changes to the specified computer.

To select a computer:

Move the mouse to the desired window (CNS).

-or-

Enable Admin mode, use the mouse to select the desired window, and enable User mode.

-or-

Enter L-CTRL | L-CTRL | <1-8>

-or-

Press buttons 1-8 on the front panel or optional AFP remote control panel.

2.5 USB Accessory Functionality

The 4-port model has three front-panel USB 3.0 ports and the 8-port model has one rear-panel USB 2.0 port to provide access and connectivity to external USB devices to ensure quick data transfer. One port (labeled with a lightning bolt) on the 4-port model is a high-power port allowing changing of USB devices such as a phone or tablet.

The USB accessory may be locked to a specific computer to enable you to switch between ports without disconnecting the user authentication session. When locked, switching channels does not affect processes performed by the USB device connected to the locked channel.

To lock the USB accessory to a specific computer:

1. Select the computer you want to lock the USB accessory on.
2. On the front panel, enable the freeze button and verify the freeze indicator illuminates on the selected channel and on the freeze button.

2.6 Audio Functionality

The switches are compatible with stereo headphones and amplified speakers. The 4-port model is also compatible with a microphone.

You can lock the analog audio to a specific channel. After you lock audio functionality, you can switch channels and the audio on the locked channel remains active.

To lock the analog audio to a specific computer:

1. Select the computer you want to lock audio on.
2. On the front panel, enable the audio freeze button and verify the audio freeze indicator illuminates on the selected channel and on the freeze button.

NOTE: You can mix or lock the digital audio for multiple computers using the Audio Setting in the On Screen Display. See Audio Settings on page 24.

2.7 Managed Copy and Paste

The managed copy and paste feature enables copying of files and text from one computer to another computer for seamless integration of sources. The feature requires a software agent that you can download from the product page at Vertiv.com. Once you install the software agent, the copy and paste feature must be enabled on each computer channel you wish to use copy and paste.

NOTE: This agent is currently only available for Microsoft Windows.

The software agent provides two options for operation:

- COM Device – This option uses the switch's internal memory for storing the copied data and supports copying and pasting text only.
- USB Device – This option uses an external USB storage device connected to the USB accessory port on the switch and supports copying and pasting text and files.

NOTE: The agent must be installed on each computer using the copy and paste feature.

To enable copy and paste functionality:

1. Access the terminal menu. See

2. Exit the terminal menu.

3. Select the computer port to use the copy and paste feature.

4. Press **L-CTRL | R-CTRL | q**

5. Repeat steps 3 and 4 for each computer.

To verify the copy and paste feature is enabled, select *Device Manager > Ports (COM & LPT)* and locate the virtual COM port.

2.7.1 Text-only Copy and Paste

The COM Device option allows copying up to 1,000 text characters between computers.

To enable the COM Device option:

1. From the Windows taskbar, locate the copy and paste agent icon, right-click on it to open the menu, and select *Settings*.

2. In the window that opens, click *Show advanced settings*.

3. From the additional tabs that appear, choose the *COM Device* tab.

4. Check Use COM Device and click *Apply* or *OK*.

5. Repeat all steps for each computer using the COM device option.

To use the COM device option:

1. Select the desired text on the source computer using the standard keyboard (**CTRL-C**) or mouse (right-click, Copy) copy function. The copied text is stored in the switch's memory.

2. Select the computer to paste the text using either the front panel buttons or keyboard shortcut.

3. Position the cursor at the desired location to paste and use the standard keyboard or mouse paste function such as CTRL-V.

NOTE: The text is copied as plain text without the original formatting parameters.

A small pop-up window on the Windows taskbar provides status updates when data is copied or available for paste. The last copied data is stored in the switch memory until another copy function is performed or the switch is power cycled. This enables pasting the same data to multiple computers.

2.7.2 File and Text Copy and Paste

The USB Device option uses a USB storage device connected to the switch's USB accessory port to store data so it can be copied between computers.

NOTE: NOTE: This feature is only available with commercial switches with blue USB 3.0 ports on the front of the switch including SV240DPH, SV340DPH, SVM240DPH, SVM280DPH and SVMV240DPH.

To enable the USB Device option:

1. Connect a USB storage device, such as a thumb drive, to one of the blue USB Accessory ports on the front of the switch. This USB storage device appears on the selected computer's driver list.

2. Using a USB-A to USB-B cable, insert the USB-A connector into an available USB port on the computer using the Copy and Paste feature. Connect the USB-B connector to the blue USB accessory port on the corresponding computer port on the switch.

3. From the Windows taskbar, right-click on the copy and paste agent icon to open its menu, and click *Settings*.

4. Click *Show advanced setting*.

5. Select the USB Device tab.

6. Check *Use USB Device*.

7. Click *Select from device list*. From the drop-down list, select the correct storage device.

8. Click *Apply* or *OK*.

9. Repeat steps 2-8 for each computer using the USB device option.

To use the USB Device option:

1. Select the desired text or file on the source computer using the standard keyboard (**CTRL-C**) or mouse (right-click, Copy) copy function. The copied data is stored on the external USB storage device connected to the switch.

2. Select the computer to paste the text or file using either the front panel buttons or keyboard shortcut.

3. Position the cursor at the desired location to paste and use the standard keyboard or mouse paste function such as CTRL-V.

NOTE: The text is copied as plain text without the original formatting parameters.

A small pop-up window on the Windows taskbar provides status updates when data is copied or available for paste. The last copied data is stored on the external USB storage device until another copy function is performed. This enables pasting the same data to multiple computers by repeating steps 2 and 3 above.

2.8 Numeric Keypad Presets

The keyboard's numeric keypad can be used to quickly change the display layout.

To enable numeric keypad presets:

Activate the OSD, select *USB Settings*, then select *Enable under Keypad Presets.*

-or-

Enter **L-CTRL** | **L-CTRL** | **F11** | **Insert** | **k** | **e**

To disable numeric keypad presets:

Activate the OSD, select *USB Settings*, and select *Disable under Keypad Presets*.

-or-

Enter **L-CTRL** | **L-CTRL** | **F11** | **Insert** | **k** | **d**
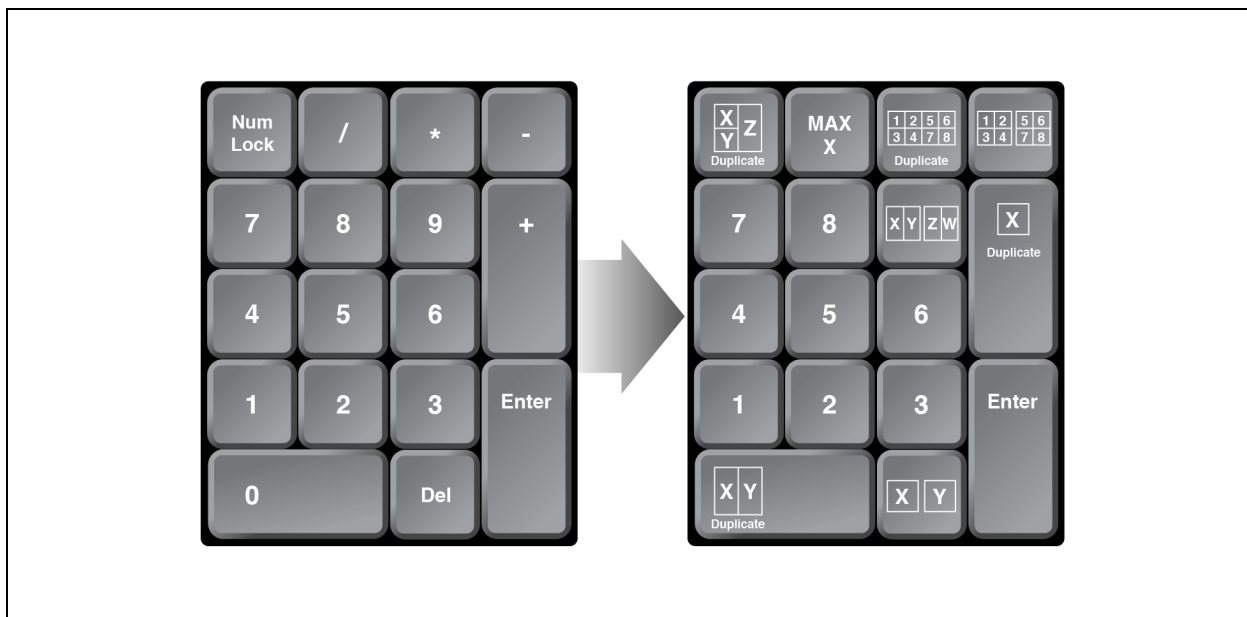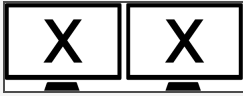
Figure 2.3   Numeric Keypad Presets
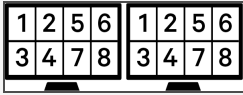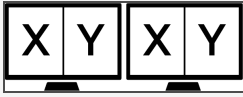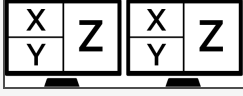
Table 2.3   Numeric Keypad Sequences

Description	Numeric Pad Sequence	Example
Layout with N windows	<ENTER> N X1 X2 … Xn	6 windows for computer 1, 2, 3, 4, 5, 8: Press: <ENTER> 6 1 5 4 3 8 2
Extended Screen Mode – computer X on primary and Y on secondary X Y	<DEL> X Y	Extended screen mode with computer 4 on primary and computer 5 on secondary: Press: <DEL> 4 5
Duplicate Screen Mode – computer X X X	<+> X	Duplicate computer 5 on both displays: Press: <+> 5
Tile + Extended Screen Mode – all computers 1 2 5 6 3 4 7 8	<->	4-Port – 1 and 2 on primary; 3 and 4 on secondary 8-Port – 1-4 on primary; 5-8 on secondary Press: <->
Tile + Duplicate Screen mode – all computers 1 2 5 6 1 2 5 6 3 4 7 8 3 4 7 8	<*>	4-Port – 1-4 on primary and secondary 8-Port – 1-8 on primary and secondary Press: <*>
Maximize computer X X	</> X	Maximize computer 3: Press: </> 3
Duplicate Screen Mode – computer X and Y X Y X Y	0 X Y	Display computers 2 and 3 on both displays: Press: 0 2 3
Extended Screen Mode – 4 computers, X and Y on primary, Z and W on secondary X Z Y W	9 X Y Z W	Display computers 3 and 7 on primary and computers 1 and 2 on secondary: Press: 9 3 7 1 2
Duplicate Screen Mode – computers X, Y and Z X Z X Z Y Y	<NumLock> X Y Z	Display computers 2 5 and 8 on both displays: Press: <NumLock> 2 5 8

2.9 System Settings

2.9.1 Factory reset

When the switch is restored to factory default settings, the front panel LEDs blink in unison to indicate a successful factory reset and restarts the switch. After the switch restarts, all computers are displayed in tile-screen mode on the primary display. Resetting to factory default settings erases all user-defined configurations, including DPP custom configurations and user-defined presets.

To clear all settings and return to the factory defaults:

Press **L-CTRL | L-CTRL | F11 | r**.

2.9.2 Terminal menu

The switch has a terminal menu that can be accessed for advanced configuration.

To log in to the terminal menu:

1. Select an active computer channel on the switch.
2. Open Microsoft Notepad or another text editor on the selected computer.
3. Enter **L-CTRL | R-CTRL | t** to initiate the terminal menu. The switch inputs character into the text editor.

To use the terminal menu, type the number of the desired option using the numbers across the top of the keyboard. The numeric pad is not supported.

NOTE: While the switch is in the terminal menu, keystrokes are not sent to the selected computer until you enter the number into the text editor for Exit Terminal Mode.

2.10 Presets

The MultiViewer switch provides several predefined screen layout presets, and you can create up to eight custom presets for each screen layout.

2.10.1 Full-screen mode

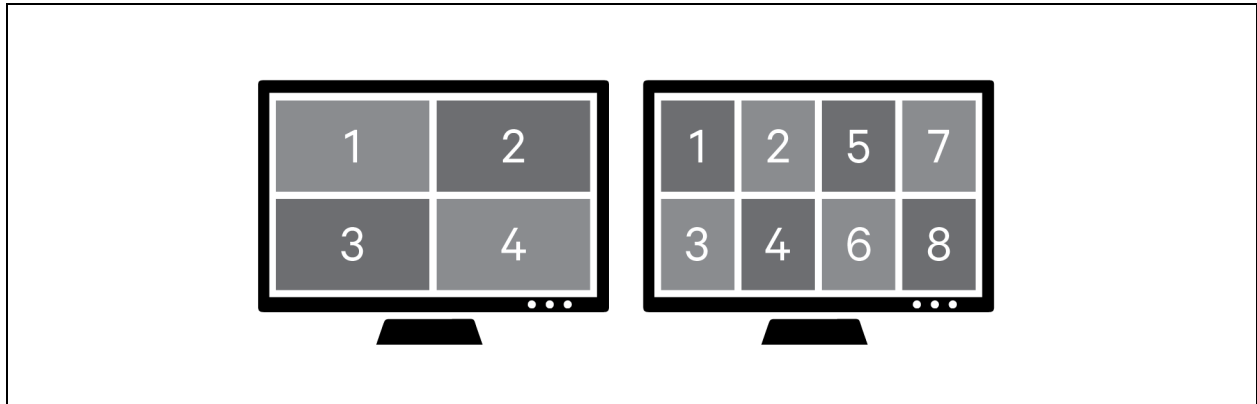The selected computer displays in full screen.

To enable full-screen mode:

Enter **L-CTRL** | **L-CTRL** | f

2.10.2 Tile-screen mode

The screen is divided into four or eight equal-sized windows.
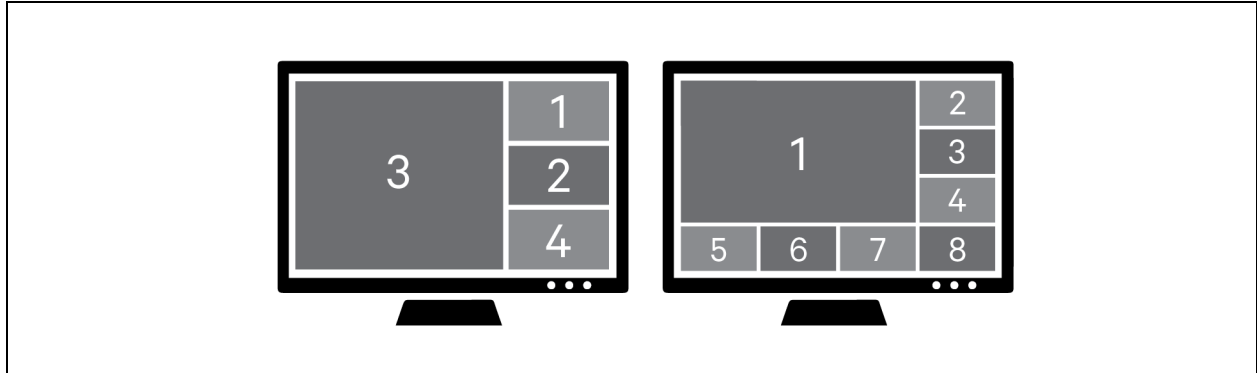
Figure 2.4   Tile-screen Mode Example

To enable tile-screen mode:

Enter **L-CTRL** | **L-CTRL** | **q**

2.10.3 Scale-screen mode

The selected window is larger.

Figure 2.5   Scale-screen Mode Example

To enable scale-screen mode:

Enter **L-CTRL** | **L-CTRL** | **s**

2.10.4 Using dual displays

In single-screen mode, the primary display is active and the secondary display is disabled.

To enable single-screen mode:

Enter **L-CTRL** | **L-CTRL** | **F11** | **s** | **0** (zero)

In duplicate-screen mode, the secondary display duplicates the primary display.

To enable duplicate-screen mode:

Enter **L-CTRL** | **L-CTRL** | **F11** | **s** | **1**

In extended-screen mode, channels can be arranged on either the primary or secondary display.

To enable extended-screen mode:

Enter **L-CTRL** | **L-CTRL** | **F11** | **s** | **2**

2.10.5 Extended-screen and Tile-screen Modes

When combining extended-screen mode with tile-screen mode, the computers are displayed in four or eight equal-sized windows distributed across both displays.

Figure 2.6   Extended-Screen and Tile-Screen Mode Example
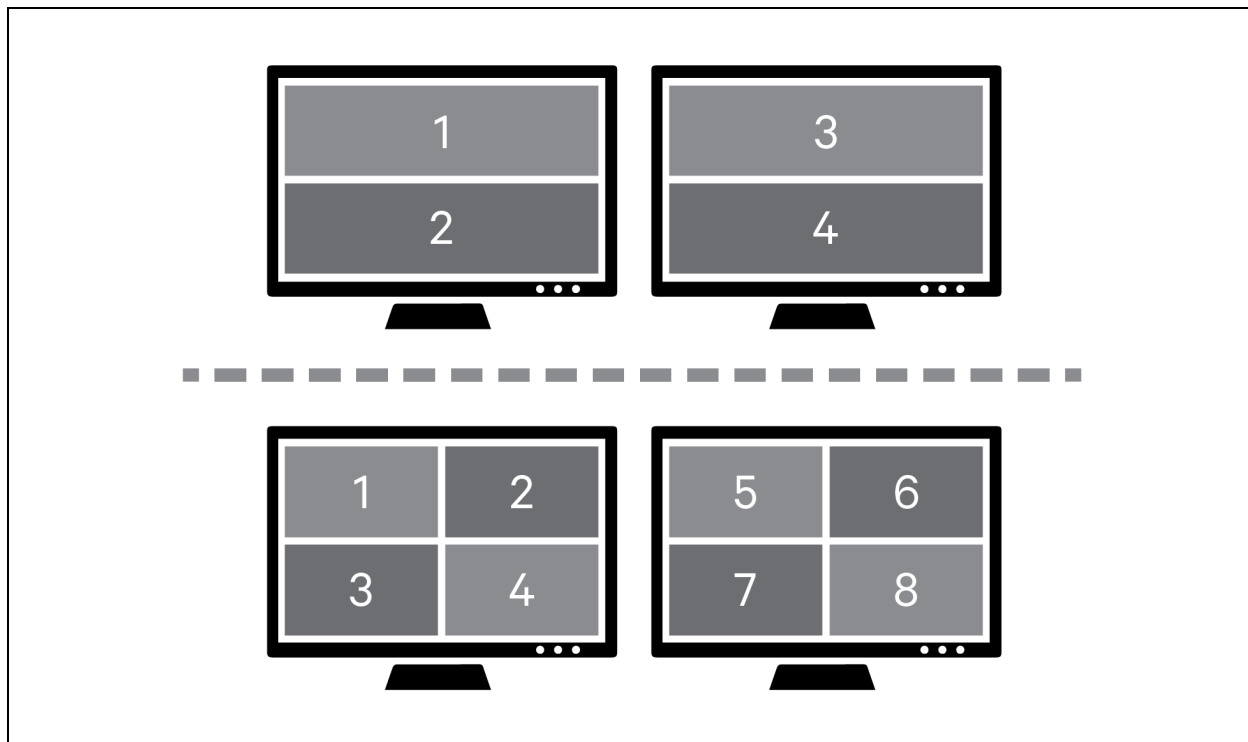
To enable extended-screen mode and tile-screen mode:

Enter **L-CTRL** | **L-CTRL** | **F11** | **s** | **2** followed by **L-CTRL** | **L-CTRL** | **q**

2.10.6 Extended-screen and Scale-screen Mode

When combining extended-screen mode with scale-screen mode, the selected computer is shown on the primary display in full screen and all computers are shown on the secondary display in tile-screen mode. The selected computer is blank in the lower right corner of the tile screen.

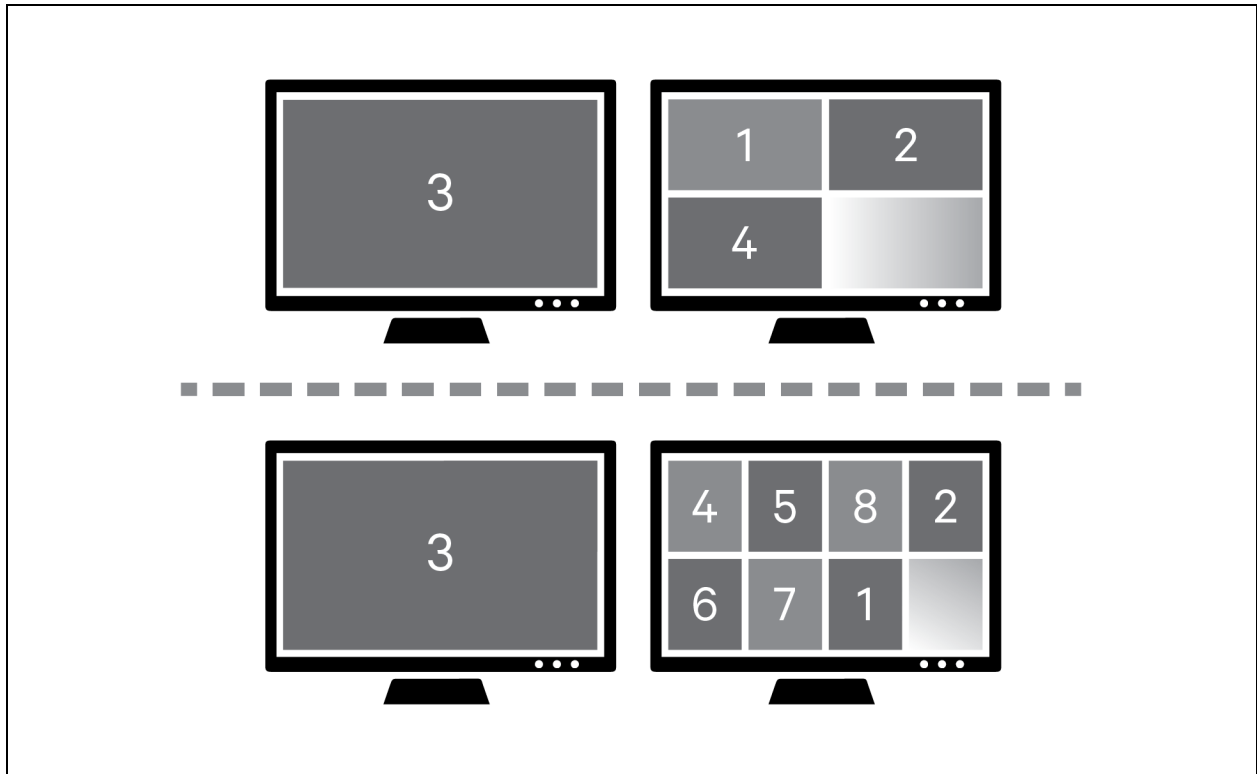**Figure 2.7   Extended-screen and Scale-screen Mode Example**

To enable extended-screen mode and scale-screen mode:

Enter **L-CTRL | L-CTRL | F11 | s | 2** followed by **L-CTRL | L-CTRL | s**

2.10.7 User-defined preset mode

You can create and save as many as eight presets to enable you to quickly switch between customized layouts. To create a preset, first customize the display with the desired window arrangement.

NOTE: You must enter Admin mode to arrange windows.

To save a preset:

Enter **L-CTRL | L-CTRL | F11 | Insert | <Fx>**

Where [Fx] is F1 – F8.

To select a preset:

Enter **L-CTRL | L-CTRL | <Fx>**

3 On-Screen Display Operation

The MultiViewer switch is managed by an intuitive On-Screen Display (OSD) menu system.
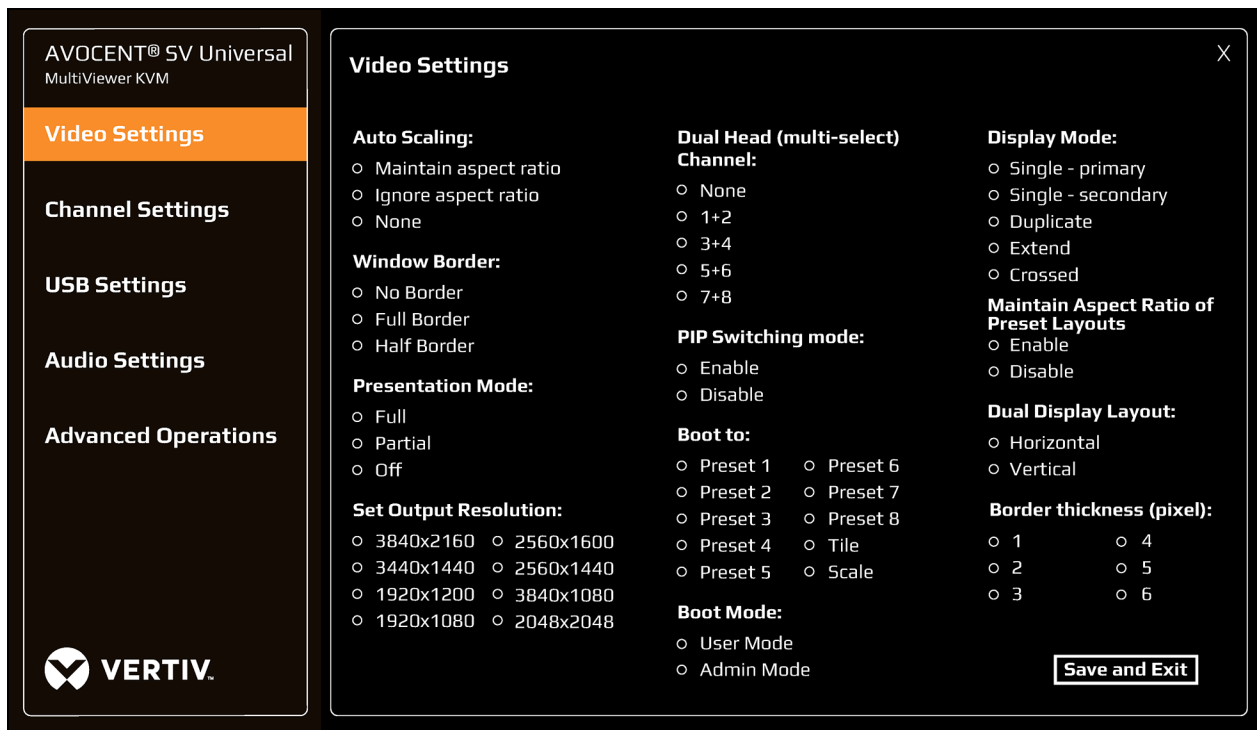
To activate the OSD:

Press **L-CTRL | R-CTRL | o**

The OSD of the SVMV280DPH switch is shown for the following description of OSD functions. On each OSD screen, click the *X* in the upper right corner to abandon changes and revert to previous settings. Click *Save and Exit* in the lower right corner to save and apply changes.

3.1 Video Settings

Figure 3.1   Video Settings Screen

3.1.1 Auto Scaling

- Maintain aspect Ratio –Maintains the aspect ratio for the console display based on the vertical axis.

- Ignore aspect ratio – If a computer can be resized to any dimension. Computer image may be distorted.

- None (default) – Auto scaling is disabled. Making the window smaller crops the image; making it larger results in a letterbox effect.

3.1.2 Windows Border

- No Border – No border on computer windows.

- Full Border (default) – Each window will have a border on all four sides.

- Half Border – Only works in full-screen mode. Provides a border on the right and bottom edges only to minimize screen usage while providing situational awareness of the selected computer.

3.1.3 Presentation Mode

This mode is used with tile-screen mode.

To enter tile-screen mode:

Enter **L-CTRL | L-CTRL | q**

- Full – The selected computer presents in full screen. Selecting another computer also presents in full screen. This mode effectively makes the MultiViewer switch act like a traditional KVM switch where each selected computer is full screen. Enter **L-CTRL | L-CTRL | q** to return to tile-screen mode.
- Partial – The selected computer presents in full screen mode. Selecting another computer returns the MultiViewer switch to tile-screen mode.
- Off (default) – Current screen layout is maintained regardless of which channel is selected.

3.1.4 Set Output Resolution

- Specifies the resolution for the primary and secondary console displays. Both displays must have the same resolution.
- Default is 1920 x 1080.

3.1.5 Dual-Head Channel (multi-select)

- Specifies computers that have two video outputs, i.e. dual-head. USB, audio and DPP is connected to the first port in the pair (odd-numbered port). This feature enables USB, audio and DPP to function while focus is on the extended display (even-numbered port). You may select multiple pairs depending on the number of dual-head computers.
- The default is None.

3.1.6 PIP (Picture In Picture) Switching mode

- Enabled – Allows cursor to enter the PIP window (guard key is required).
- Disabled (default) – When the cursor moves over the PIP window, the cursor remains in the full-screen computer window but blocked from view by the PIP window. The mouse focus remains with the computer in full-screen mode.

3.1.7 Boot to

- Specifies the default preset or mode when the switch is turned on.
    - Preset # – Displays computers according to the user-defined preset.
    - Tile (default) – Displays all connected computers in tile-screen mode.
    - Scale – Displays all connected computers in scale-screen mode.

3.1.8 Boot Mode

- Specifies the default operating mode when the switch is turned on.
    - User Mode (default) – Normal operating mode to fully interact with computer windows. Mouse movement is sent to the computer.

- Admin Mode – Allows windows to be resized and presets to be created. Mouse movement controls the MultiViewer switch and is not sent to any computer. Keyboard input is sent to selected computer. A large blue cursor displays while in Admin mode.

3.1.9 Display Mode

- Single Primary – Computer windows can only be arranged on the primary display.
- Single Secondary – Computer windows can only be arranged on the secondary display.
- Duplicate (default) – Computer windows arranged on the primary display are duplicated on the secondary display.
- Extend – Computer windows can be arranged on either the primary or the secondary display.
- Crossed – Switches the primary and secondary console video outputs. The OSD normally appears on the primary display; however, when crossed, the OSD appears on the secondary display.

3.1.10 Maintain Aspect Ratio of Preset Layouts

- Enabled - Each computer maintains aspect ratio but may not fill the window.
- Disabled (default) - Each computer automatically scales to fill the window. Computer image may be distorted.

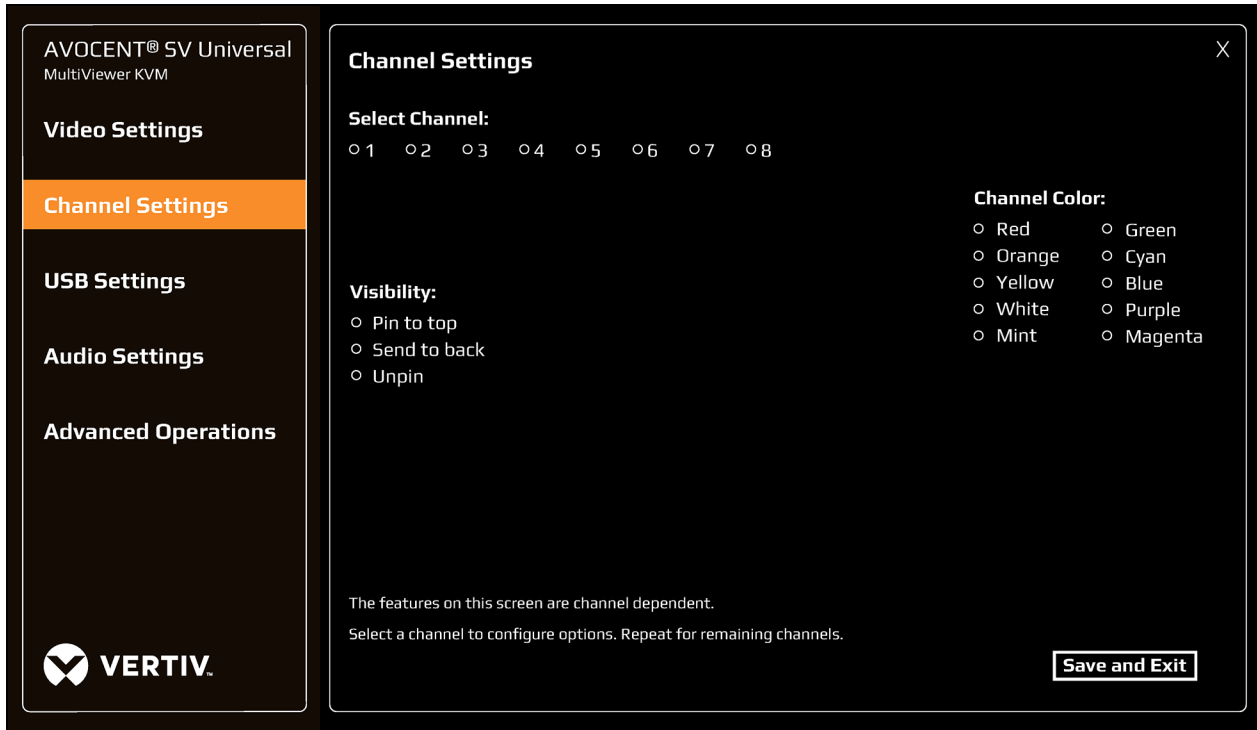### 3.1.11 Dual Displays Layout

- Required for CNS.
    - Horizontal (default) – Secondary display is to the right of the primary display.
    - Vertical – Secondary display is below the primary display.

3.1.12 Border thickness (pixel)

- Specifies the window border thickness in pixels.
- Default is 6.

3.2 Channel Settings

Figure 3.2   Channel Settings Screen

3.2.1 Select Channel

- Specifies which channel is being configured.

3.2.2 Visibility

- A selected window is brought to the front, like a PC. This feature is useful in a custom layout when windows overlap.
  - Pin to top – This window is always on top, preventing any overlapping windows from hiding it.
  - Send to back – This window is always in back, allowing overlapping windows to always be visible.
  - Unpin (default) – Releases the window from always being on top.

3.2.3 Channel Color

- Specifies the window border color.

3.3 USB Settings

Figure 3.3 USB Settings Screen
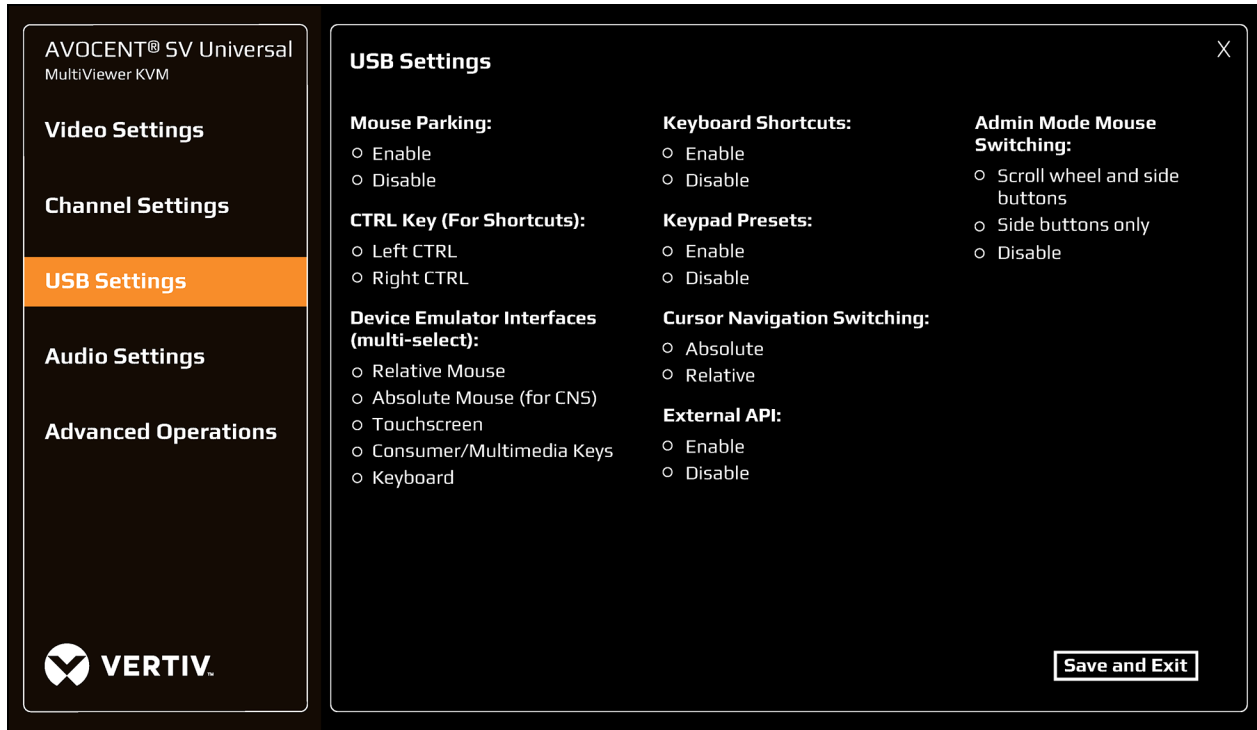
3.3.1 Mouse Parking

- Enable (default) - When you switch away from a computer, the mouse cursor is moved to the bottom right corner of the window.
- Disable - When you switch away from a computer, the mouse remains where it was last used.

3.3.2 CTRL Key (for shortcuts)

- Left CTRL (default) – all shortcuts start with L-CTRL. For example, L-CTRL | L-CTRL or L-CTRL | R-CTRL.
- Right CTRL – all shortcuts start with R-CTRL. For example, L-CTRL | L-CTRL shortcut prefix becomes R-CTRL | R-CTRL and L-CTRL | R-CTRL become R-CTRL | L-CTRL. Guard key remains L-CTRL.

3.3.3 Device Emulation Interfaces (multi-select)

- Specifies which USB devices are presented to the computers.
  - Relative mouse (default) – confines mouse movement to the selected computer; cannot use CNS to switch computers.
  - Absolute mouse (default) – required for CNS to enable switching when the mouse reaches the window edge.
  - Touch Interface – enables touchscreen support.
  - Consumer Report – enables consumer/multimedia keys on a keyboard, such as volume up/down/mute, play, track skip, etc. Custom or application key may not be supported.
  - Keyboard (default) – enables standard HID keyboard.

3.3.4 Keyboard Shortcuts

- Enable (default) – keyboard shortcuts (L-CTRL | L-CTRL) are enabled.
- Disable – keyboard shortcuts are disabled.

3.3.5 Keypad Presets

- Enable – keypad presets are enabled. See Numeric Keypad Presets on page 9 for more details.
- Disable (default)– keypad presets are disabled.

3.3.6 Cursor Navigation Switching

- Absolute (default) – CNS is enabled. You can switch between windows by holding **L-CTRL** and moving the mouse into the desired computer window.
- Relative – CNS is disabled. You must use the front panel buttons on the switch or the AFP remote switch panel to select the active computer window.

3.3.7 External API

- Enable (default) - The switch can be controlled using serial commands via the RCU port.
- Disable - Serial commands via the RCU port are not supported.

3.3.8 Admin Mode Mouse Switching

- Enables using the mouse buttons to switch between user and admin modes.
  - Scroll wheel and side button (default) - Pressing the scroll wheel or either of the side buttons.
  - Side buttons only - These are typically the forward and back buttons on the side of a mouse.
  - Disable - Only the keyboard shortcut will switch between user and admin modes.

3.4 Audio Settings

NOTE: Audio mixing is only available for digital audio, such as audio embedded in HDMI and DP.

With digital audio mixing, you can be on one channel but still hear a sounds, such as an alert tone, from another channel.

Figure 3.4   Audio Settings Screen
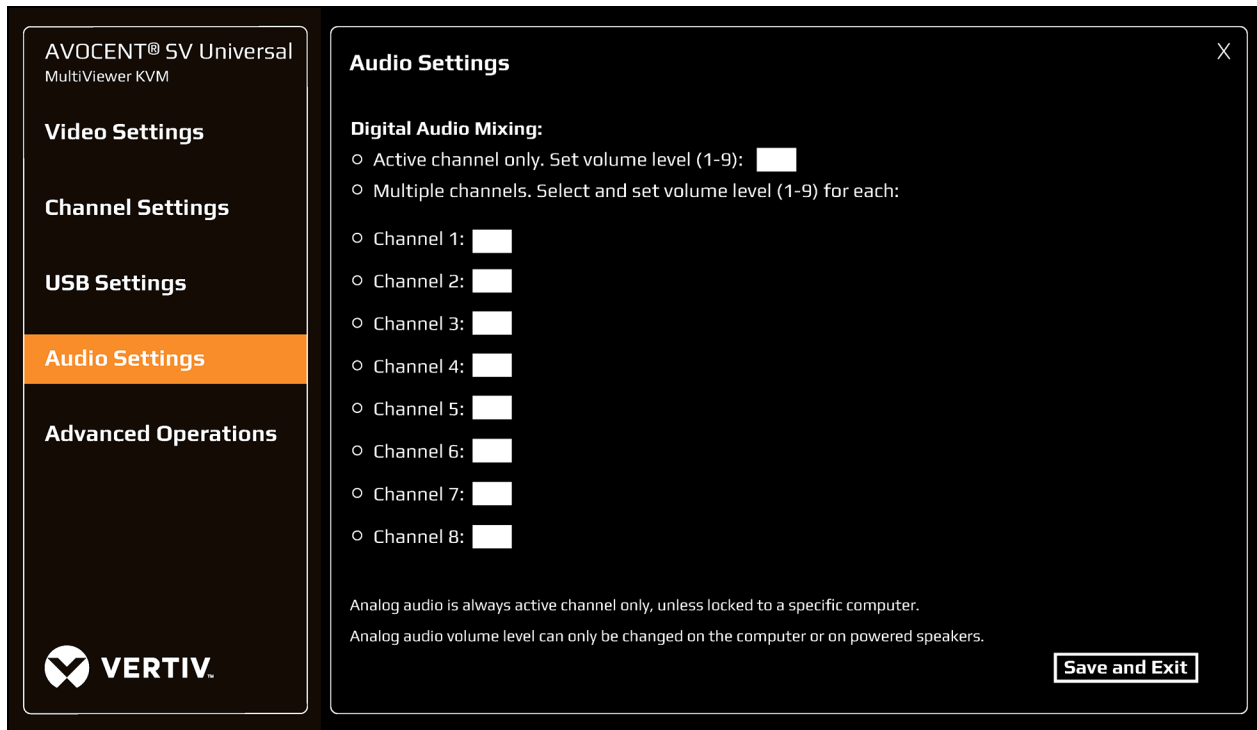
## 3.4.1 Active channel only

- Only digital audio from the selected computer is heard.
- This is the default setting with a default volume level of 9.

3.4.2 Multiple channels

- Digital audio from multiple channels is heard simultaneously.
- Select the channels to hear digital audio sound. Volume level can be independently adjusted for each selected computer.

3.5 Advanced Operations

Figure 3.5   Advanced Operations Screen
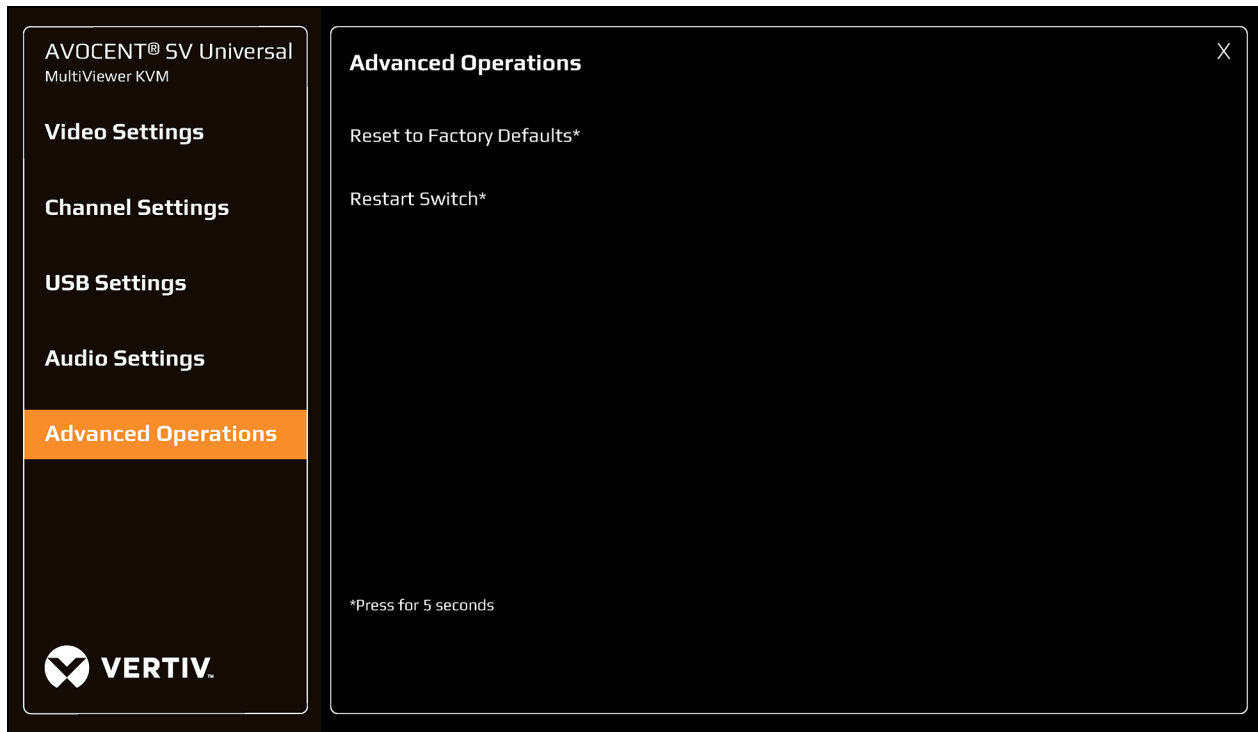
3.5.1 Reset to Factory Defaults

- When the switch is restored to factory default settings, all user-defined configurations are erased including DPP custom configurations and user-defined presets.
- When the switch is restored to factory default settings, the front panel LEDs blink in unison to indicate a successful factory reset and restarts the switch. After the switch restarts, all computers are displayed in tile-screen mode on the primary display.

3.5.2 Restart MultiViewer Switch

- MultiViewer switch restarts.
- After the switch restarts, the computers are displayed according to the Boot To: option in the video settings.

Appendices

Appendix A: Keyboard Shortcuts

Table A.1   Keyboard Shortcut Options

Description	Shortcut
Reset to factory defaults	L-CTRL | L-CTRL | F11 | r
Activate the OSD	L-CTRL | R-CTRL | o (letter 'o')
Enter User mode	L-CTRL | L-CTRL | u
Enter Admin mode	L-CTRL | L-CTRL | o (letter 'o')
Select channel <X>	L-CTRL | L-CTRL | <1-8>
Disable CNS	L-CTRL | L-CTRL | F11 | b
Enable CNS (default)	L-CTRL | L-CTRL | F11 | c
Increase mouse speed (relative mouse only)	L-CTRL | L-CTRL | F11 | +
Decrease mouse speed (relative mouse only)	L-CTRL | L-CTRL | F11 | -
Create custom preset	L-CTRL | L-CTRL | F11 | Insert | [Fx]
Switch to custom preset	L-CTRL | L-CTRL | [Fx]
Access the terminal menu	L-CTRL | R-CTRL | t
Enable/disable managed copy and paste (disabled by default) Note: Requires accessing the terminal menu first	L-CTRL | R-CTRL | q
Maximize selected window	L-CTRL | L-CTRL | f
Undo maximize (only available immediately after maximizing a window)	L-CTRL | L-CTRL | z
Auto-scale window according to its least dimension	L-CTRL | L-CTRL | w
Auto-scale window exactly (does not maintain aspect ratio)	L-CTRL | L-CTRL | y
Enable tile-screen mode	L-CTRL | L-CTRL | q
Enable scale-screen mode	L-CTRL | L-CTRL | s
Enable single-screen mode	L-CTRL | L-CTRL | F11 | s | 0 (zero)
Enable duplicate-screen mode	L-CTRL | L-CTRL | F11 | s | 1
Enable extended-screen mode	L-CTRL | L-CTRL | F11 | s | 2
Enable the numeric keypad shortcuts	L-CTRL | L-CTRL | F11 | Insert | k | e
Disable the numeric keypad shortcuts	L-CTRL | L-CTRL | F11 | Insert | k | d
Temporarily switch to relative- mouse mode	L-CTRL + Shift [press and hold]
Enable/disable shortcut forwarding (disabled by default)	L-CTRL | R-CTRL | End

Appendix B: Product Specifications

Table B.1   Product Specifications

Switch Models	SVMV240DPH	SVMV280DPH
Computers		
Ports	4	8
Video Type	1 x DP / HDMI universal port	
Max resolution	UHD 4K (3840x2160) @ 30Hz	
Keyboard and Mouse	1 x USB 2.0 Type B	
USB Accessory	1 x USB 3.0 Type B	1 x USB 2.0 Type B
Analog Audio	3.5mm Speaker & 3.5mm Microphone	3.5mm Speaker
Console		
Video Type	2 x HDMI	2 x DP/HDMI Universal port
Keyboard and mouse	2 x USB 2.0 Type A	
USB Accessory	3 x USB 3.0 Type A	1 x USB 2.0 Type A
Analog Audio	3.5mm Speaker & 3.5mm Microphone	3.5mm Speaker
Physical		
Dimensions (WxDxH)	13.7 x 5.0 x 1.7 in 348 x 127 x 43 mm	17.4 x 7.2 x 2.6 in 442 x 183 x 66 mm
Weight	3.5 lbs / 1.6 Kg	8.2 lbs / 3.7 Kg
Mounting Option	Desk Mount - DMK-09	Rack Mount Included
Environmental Conditions		
Operating Temperature	0 to 40C / 32 to 104 F	
Storage Temperature	-20 to 60C / -4 to 140 F	
Humidity	0 to 80% RH, non-condensing	
Electrical Power		
AC Input Voltage	100 – 240V AC	
Power Supplies	1 x internal	
Power Connector	IEC320 C14 to IEC320 C13 power cord (6 foot), with user interchangeable C14 to localized socket plugs	
Regulatory		
Regulatory Certifications	FCC class A, CE, TUV US, TUV Canada, RCM, VCCI	
Standard Product Warranty	2 Years; additional warranty terms available	
Design & Assembly	Huntsville, AL USA	

NOTE: A DVI-D computer or console display may be connected using an HDMI-to-DVI-D cable (see accessories below).

Table B.2   Computer Cables

Computer Video	Video Type	Length (ft/m)	Single Head	Dual Head
DP	DP-to-DP	6 / 1.8	CBL0122	CBL0124
		10 / 3.0	CBL0123	CBL0125
Mini DP	mDP-to-DP	10 / 3.0	CBL0198	CBL0199
HDMI	HDMI-to-HDMI	6 / 1.8	CBL0126	CBL0128
		10 / 3.0	CBL0127	CBL0129
DVI-D	HDMI-to-DVI-D	10 / 3.0	CBL0196	CBL0197

NOTE: USB Accessory requires separate USB 2.0 or USB 3.0 extension cable.

Table B.3   Console Video Only Cables (6ft/1.8m)

Display Video	Cable Type	Display Video
DP	DP-to-DP	CBL0188T
HDMI	HDMI-to-HDMI	CBL0189T
DVI-D	HDMI-to-DVI-D (DVI-D display to HDMI KVM)	CBL0191T

Table B.4   Accessories

Part Number	Description	Usage
USBCKVMSHNP	10ft USB-C (PC) to single display DP (KVM) adapter cable +ETH +PWR	Connect USB-C single-head computer to MultiViewer KVM switch
USBCKVMDHNP	10ft USB-C (PC) to dual display DP (KVM) adapter cable +ETH +PWR	Connect USB-C dual-head computer to MultiViewer KVM switch
AFP0004	4-Port remote active front panel	Remotely select computer ports on the SVMV240DPH switch
AFP0008	8-Port remote active front panel	Remotely select computer ports on the SVMV280DPH switch

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